

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An etching solution comprising:
a solution of cupric chloride and at least one triazole type compound added to the
cupric chloride solution; and
at least one amphoteric surface active agent selected from the group consisting of
alkyldimethyl betaine aminoacetate, alkyldimethyl betaine acetate, alklydimethyl
carboxymethyl betaine, alklydimethyl carboxymethylene ammonium betaine, alklydimethyl
ammoniumacetate, fatty amide propyl dimethyl betaine aminoacetate, alkyl amide propyl
betaine, alkyloloyl amide propyl dimethyl glycine, alkanoyl aminopropyl dimethyl ammonium
acetate, palm oil fatty amide propyl betaine and palm oil fatty amide propyl dimethyl betaine
aminoacetate.

Claim 2 (Previously Presented): The etching solution of claim 1, wherein the at least
one triazole type compound is selected from the group consisting of benzotriazole,
benzotriazole-COOH and tolyl triazole.

Claim 3 (Previously Presented): The etching solution according to claim 1, wherein
the concentration of the at least one triazole type compound is over 1000 ppm and under 3000
ppm.

Claim 4 (Previously Presented): The etching solution according to claim 1, wherein
the concentration of the at least one triazole type compound is in a range of from 1200 to
2500 ppm.

Claim 5 -7 (Canceled).

Claim 8 (Currently Amended): The etching solution according to claim [[5]] 1, wherein the concentration of the at least one amphoteric surface active agent or the at least one anionic surface active agent ranges from 2000 to 11000 ppm.

Claim 9 (Currently Amended): The etching solution of claim [[5]] 1, wherein the concentration of the at least one amphoteric surface active agent or the at least one anionic surface active agent ranges from 4000 to 9700 ppm.

Claim 10 (Currently Amended): A method of etching exposed parts of a copper layer, wherein parts of the copper layer are coated with an etching resist having a predetermined pattern, wherein the parts of the copper layer not coated with the etching resist are exposed, using an etching solution, comprising:

applying, to parts of the copper layer exposed between traces of the etching resist pattern, an etching solution comprising a solution comprising cupric chloride and at least one triazole type compound to etch the exposed parts of the copper layer;

wherein an inhibiting coating is selectively formed on the parts of the copper layer coated with the etching resist; and

wherein the etching solution comprises at least one amphoteric surface active agent selected from the group consisting of alkyldimethyl betaine aminoacetate, alkyldimethyl betaine acetate, alkyldimethyl carboxymethyl betaine, alkyldimethyl carboxymethylene ammonium betaine, alklydimethyl ammoniumacetate, fatty amide propyl dimethyl betaine aminoacetate, alkyl amide propyl betaine, alkyloyl amide propyl dimethyl glycine, alkanoyl

aminopropyl dimethyl ammonium acetate, palm oil fatty amide propyl betaine and palm oil fatty amide propyl dimethyl betaine aminoacetate.

Claim 11 (Currently Amended): The method of claim 10, wherein the etching solution further comprises ~~at least one amphoteric surface active agent or~~ at least one anionic surface active agent.

Claim 12 (Previously Presented): The etching method according to claim 10, wherein the at least one triazole type compound is selected from the group consisting of benzotriazole, benzotriazole-COOH and tolyl triazole.

Claim 13 (Previously Presented): The etching method according to claim 10, wherein the concentration of the at least one triazole type compound is over 1000 ppm and under 3000 ppm.

Claim 14 (Previously Presented): The etching method according to claim 10, wherein the concentration of the at least one triazole type compound is in a range of 1200 to 2500 ppm.

Claim 15-16 (Canceled).

Claim 17 (Currently Amended): The etching method of claim [[11]] 10, wherein the concentration of the at least one amphoteric surface active agent ~~or the at least one anionic surface active agent~~ ranges from 2000 to 11000 ppm.

Claim 18 (Currently Amended): The etching solution according to claim [[11]]10, wherein the concentration of the at least one amphoteric surface active agent or the at least one anionic surface active agent ranges from 4000 to 9700 ppm.

Claim 19 (Currently Amended): A printed wiring board having a circuit pattern formed by the etching method of claim [[11]]10, wherein on the side wall of the circuit pattern, there are formed nonuniform irregularities having a shape and size that depend upon the concentration of the at least one triazole type compound added to the etching solution, the concentration of the surface active agent or spray pressure of the etching solution.

Claim 20 (Currently Amended): The printed wiring board according to claim 19, wherein the nonuniform irregularities are comprised of primary depressions including many convexities extending irregularly from the surface of the circuit pattern toward the surface of a substrate and concavities existing between the convexities, and secondary depressions including smaller irregularities existing between the concavities and convexities included in the primary depressions.

Claim 21 (Previously Presented): The printed wiring board according to claim 20, wherein:

the primary depressions comprise a pitch of from 5 to 20 μm ; and
wherein the primary depressions comprise a depth of from 5 to 15 μm .

Claim 22 (Previously Presented): The printed wiring board according to claim 20, wherein the primary and secondary depressions comprise a depth, and wherein the depth of the secondary depressions is 1/10 to 1/2 of the depth of the primary depressions.